

claims 1 and 8 unanticipated by Ella patents (US Patent Nos. 5,910,756 and 5,714,917), and respectfully traverse the rejections based on the amended claims and the following detailed explanation.

In the present invention, the notch filter is a typical notch filter whose only function is to generate one or more notches, but does not generate a passband, as now clearly defined in claim 1. Ella teaches a BAWR-SCR filter arrangement in which SCR and BAW ladder filters are combined in a filter circuit so as to take advantage of both types of filters. In particular, BAW ladder filters can exhibit passbands having deep notches, and SCR filters have better stopband attenuation (see, e.g., col. 5, lines 45-53 in '756 patent). However, a BAW ladder filter is not a typical notch filter as it not only generates notches but also generates a bandpass. In particular, the BAW ladder filters in Ella, which generate the notches above and below the passband, also function as a bandpass filter for generating a frequency response at the required center frequency. More specifically, the series resonance of the series-connected BAW resonator and the parallel resonance of the parallel-connected BAW resonator generate the frequency responses at the center frequency of the circuit (see Figure 10 and col. 23, lines 1 – 14, in '756 patent). This is clearly described throughout Ella patents, and a detailed introduction to the BAW ladder filters can be found in the background portion of Ella's '756 patent Specification (see col. 1, lines 59 - col. 2, lines 47, in '756 patent). To more clearly distinguishing the present invention from the Ella patents, the applicants believe that the notch filter does not generate a passband, which is believed distinguishable from the BAW ladder filter and the SCR filter in Ella patents as both of the SCR and BAW filters generate a passband.

Therefore, applicants believe that the amended claim 1 is not anticipated by either of Ella patents under 35USC §102(b), and is thus patentable. At least for the same reason, its dependent claims 2, 4-7 and 13, each of which include all the limitations in claim 1, are also patentable.

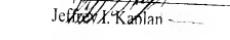
Moreover, applicants believe that the method of manufacturing the filter arrangement of the present invention as defined in the further amended claim 8 is not anticipated by either of Ella patents. As taught by the present invention, the second electrode, the piezoelectric and the first diode are provided sequentially on a carrier layer with said second electrode (5) adjoining said carrier layer, and a substrate (1) is fastened on said first electrode (3). In other words, the sacrificial layer adjoins the second electrode (5) while the substrate adjoins the first electrode (3). In Ella, however, the sacrificial layer is sandwiched between the substrate and the membrane for the purpose of forming an air gap between the substrate and the membrane, and does not have the same arrangement as defined in claim 8. Thus, the Applicants believe claim 8 as amended is not anticipated by Ella and is thus patentable. At least for the same reason, its dependent claim 14 is also patentable.

Applicants therefore respectfully request reconsideration and allowance in view of the above remarks and amendments. The Examiner is authorized to deduct additional fees believed due from our Deposit Account No. 11-0223.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal service as first class mail, in a postage prepaid envelope, addressed to Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on May 20, 2003.

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MARKED-UP VERSION OF THE AMENDED CLAIMS 1 AND 8

1. (Fourth Time Amended) A filter arrangement which comprises a substrate (1) on which are provided a bandpass filter [for generating a passband] and a notch filter [exclusively for producing a notch at one or both edges of said passband], which filters are coupled to one another, wherein both the bandpass filter and the notch filter are thin-film filters, and the notch filter does not generate a passband.

8. (Fourth Time Amended) A method of manufacturing a filter arrangement, which comprises a substrate and provided thereon a bandpass filter of bulk acoustic wave resonators and a notch filter, by which method

- a second electrode (5), a piezoelectric layer (4), and a first electrode (3) are provided sequentially on a carrier layer with said second electrode (5) resting on said carrier layer, and are structured such that at least one resonator unit, a capacitor, and an inductance are created,
- a reflection element (2) is deposited on those portions of the first electrode (3) which belong to the resonator unit,
- a substrate (1) is fastened on [the entire assembly opposite to the carrier layer] said first electrode (3), and the carrier layer is removed.